



Contents

Malaysian Journal of Chemistry Volume 27(5), 2025

- Synthesis and Characterization of Sulfonated Polydivinylbenzene Catalyst for Esterification of Glycerol** 1
Nur Amirahtul Jannah Daud, Nur Natasya Naziera Ramli, Sabiha Hanim Saleh and Noraini Hamzah*
- Removal of Erythrosine Dye from Aqueous Solutions using Mesoporous Silica Synthesised from Coal Bottom Ash** 17
Afifah Athirah Saini, Anis Haziqah Mohd Yusof, Fatin Nur Athirah Mohmad Rosli, Muhamad Hafiz Zulkafli, Mursyida Mohd Dakroh, Maryam Husin and Hamizah Md Rasid*
- Advances in the Development of Leaching Agents for Assisting Phytoremediation of Rare Earth Elements: A Review** 27
Nur Nazifa Nasuha Muhammad, Naili Asna Muna, Mohd Yusri Mohd Yunus, Karimah Kassim, Nurul 'Ain Jamion, Megat Ahmad Kamal Megat Hanafiah, Nurul Filzah Ghazali and Yong Soon Kong*
- Superconducting Properties of Nanosized Molybdenum Sulphide (MoS_2) Added $\text{Bi}_{1.6}\text{Pb}_{0.4}\text{Sr}_2\text{CaCu}_2\text{O}_8$ Superconductor** 51
Masnita Mat Jusoh* and Roslan Abd Shukor
- Physicochemical and Spectroscopic Characterisation of Malaysian Honeys for Potential Medicinal Applications** 58
Zul Hadif Abd Aziz, A. B. M. Helal Uddin*, Norfatini binti Mohd Aminudin, Taslima Begum, Qamar Uddin Ahmed and Liew Kai Bin
- Synthesis, Characterization, and Adsorption Screening of Nanomagnetic Activated Carbon Derived from Biomass Waste: Oil Palm Trunk, Pinewood, and Rubberwood for the Removal of Malachite Green Dye Solution** 68
Wan Noni Afida Ab Manan and Ahmad Zamani Ab Halim*

Phytochemical Screening and Evaluation of <i>in vitro</i> Antioxidant, Antibacterial and Antibiofilm Activities of <i>Mitragyna speciosa</i> Leaf Extract	80
Taslima Begum, Qamar Uddin Ahmed*, Mohd Hafiz Arzmi, A. B. M. Helal Uddin, Alfi Khatib, Sharifah Nurul Akilah Syed Mohamad, Syarifah Nurhikmah Izzati Syed Nasarudin, Syed Atif Abbas and Zul Hadif Abd Aziz	
Synthesis, Characterization, and Determination of Liquid Crystal Properties of Symmetrical Amide-Based Molecules	95
Tan Zhe Cong, Zuhair Jamain* and Melati Khairuddean	
Crosslinking Effects on Swelling, Thermal and Physicochemical Properties of Hemicellulose-Based Hydrogels	110
Nurathirah Nabihah Sairi, Shariff Ibrahim, Noraini Hamzah, Norizan Ahmat, Mohammed Falalu Hamza, Wan Mohd Faizal Wan Ishak and Sabiha Hanim Saleh*	
Morphological, Structural and Photocatalytic Properties of Urea-derived Carbon-doped ZnO Synthesized via Co-precipitation for Methylene Blue Dye Degradation	121
Nur Liyana Izzati Aminuddin, Hartini Ahmad Rafeaie*, Zul Adlan Mohd Hir, Shaari Daud, Hamizah Mokhtar and Nurul Fatahah Asyqin Zainal	
Spectroscopic Analysis of Diamide Ligands as Potential Anion Receptors by using Combination of ¹H NMR and DFT Studies	131
Nur Shuhaila Haryani Abd Haris, Suhaila Sapari, Fazira Ilyana Abdul Razak and Maisara Abdul Kadir*	
Effects of Oil Content, Mixing Time, and Temperature on the Performance Stability of Water-in-Crude Oil Emulsion using <i>Hylocereus undatus</i> Foliage as Biosurfactants	145
Hairul Amani Abdul Hamid*, Mohammad Faiez Daud, Muqri Syahmi Anas, Muaz Adam Amerruddin and Ayub Md Som	
Sustainable Silk Yarn Dyeing using <i>Hibiscus rosa-sinensis</i>: Optimisation of Process Variables via Response Surface Methodology Approach	161
Wan Azwin Idayu Wan Mohd Juhari, Wan Khartini Wan Abdul Khodir, Ahmad Farid Abdul Jalal and Shafida Abd Hamid*	
Effect of Reaction Time on the Synthesis of Graphene Oxide using Waste Tire	174
Azra Umairah Anuar, Noor Najmi Bonnia*, Norashirene Mohamad Jamil, Nor Dalila Nor Affandi, Noor Asnida Asli and Nor Suhaila Md Hanapi	
Physicochemical Characterisation and Biodegradability of Starch Films Reinforced with Cassava Peel Microcrystalline Cellulose	182
Nur Aribah Wajihah Zol Nadzruddin, Hamizah Md Rasid, S. Ratim, Farah Liyana Muhammad Khir and Maryam Husin*	

Transesterification of Waste Cooking Oil using Empty Fruit Bunches Ash-supported NaOH Heterogeneous Catalyst	200
Ahmad Alif Firdaus Ahmad Damanhuri, Norshahidatul Akmar Mohd Shohaimi*, Naimat Abimbola Eleburuike and Mhd Nur Anshur Husin	
Treatment of Laundry Wastewater using Papaya and Okra Seed Bio-coagulant	209
Mohamad Rakizi Sidi, Norhafezah Kasmuri*, Khuriah Abdul Hamid, Satoto Endar Nayono, Mohd Fuad Miskon ⁵ and Amin Mojiri	
Quality of Chocolate Oat Cookies Added with Whole Rice Bran Upon Storage at Room Temperature	224
Intan Farisha Aina Samsudin, Fadhilah Jailani*, Noorul Athiera Mohd Azlie and Azizah Othman	
Microplastics in Different Tissues of Five Common Fishes from Yuehai Lake: Accumulation, Characterization, and Contamination Assessment	233
Jia Ren, YiChao Li, YuWen Wang, Huifang Yang* and Faeiza bt Buyong*	
Comparative Analysis of Natural Coagulants Towards Greywater from Mosque in Shah Alam, Selangor	251
Muhammad Luqman Hakim Omar, Norhafezah Kasmuri*, Khuriah Abdul Hamid, Nor Hanuni Ramli and Satoto Endar Nayono	
Assessment of Biochemical Methane Potential and Kinetic Studies on Municipal Solid Waste for Methane Production	267
Nurzulaifa Shaheera Erne Mohd Yasim, Arnis Asmat, Mohd Talib Latif and Faeiza Buyong*	
Impact of LiClO₄ Concentration on the Electrical and Dielectric Properties of Corn Starch-PVA Solid Polymer Electrolytes as Potential Application for Electric Double-Layer Supercapacitors	276
Fairuzdzah Ahmad Lothfy*, Nur Atiqah Ayyuni Ismail, Siti Aisyah Binti Che Mahmod, Siti Ruqayyah Abu Hanifah, Nurin Irdina Hazman, Nur Ain Natasha Nik Zainul Abidin and Nur Aleya Syahirah Rosli	